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(54) Title: A DIRECTIVE, BROADBAND, HIGH GAIN, ACTIVE ANTENNA SYSTEM

(57) Abstract: A broadband, high-gain, active antenna system is disclosed, which operates with a bi-directive reception pattern while in its standard configuration and with a directive reception pattern over several octaves of Radio Frequency (RF) spectrum when affixed with a tuned scatter-plate. As a standalone active antenna system the disclosed antenna probe element and the amplifier subassembly exhibit the bi-directional directive properties of a standard fixed length dipole, while the addition of a scatter-plate makes the antenna directive with separate frequency-dependant directive modes. The scatter-plate can be tuned such that these separate directive modes occur at convenient areas of the RF frequency spectrum. Other means of achieving directivity are disclosed using the antenna probe element and the amplifier subassembly.



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